REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Thus, the claims have been amended in response to the rejection of the claims under the second paragraph of 35 U.S.C. 112. In view of these amendments, Applicants respectfully submit that these grounds for rejection have been rendered moot.

Other changes of a minor nature have also been made in the claims, for the purpose of placing the claims in more conventional form according to U.S. practice. Among these changes, claim 4 has been amended to depend only from claim 2, and to delete reference to the amines. The purpose of this is to satisfy the need for antecedent basis in the claim. That is, although claim 4 (before the amendment) is dependent on claim 1, claim 1 does not provide any antecedent basis for the inorganic base, the inorganic salt, the organic metal or the amines. Amended claim 4 is dependent only on claim 2 which provides antecedent basis for the inorganic base, the inorganic salt, or the organic metal. Similar changes have been made in claim 8, which is dependent on claim 3, which provides antecedent basis for the amine. Claim 7 has been canceled because the subject matter of this claim is covered by amended claims 4 and 8.

The patentability of the presently claimed invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1, 3, 5 and 10 under 35 U.S.C. 102(b) as being anticipated by Matteoli et al. is respectfully traversed.

The Matteoli et al. reference relates to synthesis of fluorine-containing acrylic acid esters and N, N- disubstituted amides of fluorine-containing acrylic acids.

The reaction scheme on page 3 of the Office Action, which the Examiner uses to describe the Matteoli et al. reference, is accurate, and is set forth in reaction scheme 1 at the top of page 288 of the reference, showing compound 3 converted to compound 1. But then the Examiner states that the reference teaches a process for producing a fluorine-containing acrylic acid ester in which 2-bromo-3, 3, 3-trifluoropropene is reacted with a straight chain aliphatic alcohol in the presence of a

palladium catalyst, carbon monoxide **and two kinds of bases, diethylamine and triethylamine** (referring in part to section 4.1 on page 292 of the reference for its disclosure of diethylamine and triethylamine), which is incorrect. Section 4.1 on page 292 does show diethylamine and triethylamine, **but it does not show any alcohol**, which is one of the required components in the reaction according to the present invention. Section 4.1 is intended to represent the synthesis in the paragraph in the left column on page 288 immediately preceding the "Results and discussion" section, in which compound 3 is subjected to carbonylation in the presence of secondary amines to form N, N-dialkylacrylamides of type 2, shown at the bottom of the right column on page 288. That is, scheme 2 on page 288 represents two alternative reactions, one involving the alcohol (ROH), and the other involving the secondary amine (R_2NH). The reaction of compound 3 with ROH to produce compound 1 is the same reaction as in the first part of scheme 1 on page 288. The reaction of compound 3 with R_2NH to produce compound 2 is the type of reaction in the paragraph immediately preceding the "Results and discussion" section on page 288, and represented by section 4.1 on page 292. In this latter reaction, a diethylamine functions as a reactant which is chemically combined into the reaction product. There is no disclosure or suggestion in the Matteoli et al. reference, of conducting the reaction from compound 3 to compound 1 (referring to scheme 1 or scheme 2) **in the presence of the diethylamine and triethylamine**. Applicants thus respectfully submit that the Examiner is incorrect in stating that the reaction of the 2-bromo-3, 3, 3-trifluoropropene with a straight chain aliphatic alcohol in Matteoli et al. is conducted in the presence of diethylamine and triethylamine.

Thus, Matteoli et al. fail to disclose or suggest a process of the present invention in which a compound of formula (I) (or a compound of formula (II)) is reacted with an alcohol in the presence of a palladium catalyst, carbon monoxide **and two or more bases**. For these reasons, Applicants respectfully submit that the rejection of the claims as being anticipated by the Matteoli et al. reference should be withdrawn.

The rejection of claims 1-11 under 35 U.S.C. 103(a) as being unpatentable over Matteoli et al. in view of Fuchikami et al. is respectfully traversed.

Applicants' arguments concerning the Matteoli et al. reference as set forth above are equally applicable to this rejection.

In item 12 on page 4 of the Office Action, the Examiner suggests that since Matteoli et al. state that the alkoxycarbonylation process to form the acrylic ester (page 288, second column, third paragraph, second sentence) uses the same conditions as the carbonylation process (page 292, second column, section 4.1), both diethylamine and triethylamine are used in a process to form the acrylic ester.

However, what the Examiner refers to as "the carbonylation process" (referring to section 4.1) is actually an amidocarbonylation reaction. Table 1 on page 289 is for the alkoxycarbonylation reaction, reflected by the reaction of compound 3 with ROH to produce compound 1 in scheme 2 on page 288; whereas Table 2 on page 289 is for the amidocarbonylation reaction, reflected by the reaction of compound 3 with R_2NH to produce compound 2 in scheme 2 on page 288. The Examiner's reference to "the same conditions" is taken from the second full paragraph in the right column on page 288 which indicates that the amidocarbonylation reaction is conducted under the same conditions used in the alkoxycarbonylation reaction except for the reaction temperature. But these "same conditions" do not mean that diethylamine and triethylamine are used in the alkoxycarbonylation reaction. Clearly, the reactants used in the alkoxycarbonylation reaction and the reactants used in the amidocarbonylation reaction are, as a whole, different from each other, in that the alkoxycarbonylation reaction uses an alcohol (but not the amine), and the amidocarbonylation reaction uses the amine (but not the alcohol). The "conditions" in the second full paragraph in the right column on page 288 mean pressure, temperature, etc. used to react the starting materials, but the conditions do not include the starting materials themselves, which is readily apparent from the context in which "the same conditions" is used as discussed above.

The Fuchikami et al. reference employs an inorganic base or tertiary amine independently of each other.

The Examiner states that it would have been *prima facie* obvious to substitute the inorganic base of Fuchikami et al. for one of the bases of Matteoli et al., and that the expected result would be

the effective synthesis of fluorine-containing acrylic acid esters for use in pharmaceuticals and functional polymers.

However, the bases used in Matteoli et al. are for the **amido**carbonylation reaction, so that the use of amine bases is required in the Matteoli process. There is no disclosure or suggestion in either Matteoli et al. or Fuchikami et al. which would lead one of ordinary skill in the art to replace one of the amines used in section 4.1 of Matteoli et al. with an inorganic amine, as suggested by the Examiner, but even if it were obvious to do so, the result would still be to carry out the amidocarbonylation (rather than the alkoxycarbonylation reaction) to produce the amides of type 2 in reaction scheme 2 of Matteoli et al., keeping in mind that the amines in Matteoli et al. are used only for the amidocarbonylation reaction, rather than the alkoxycarbonylation reaction.

The Examiner states that the expected result of substituting the inorganic base of Fuchikami et al. for one of the bases of Matteoli et al. would be the effective synthesis of fluorine-containing acrylic acid **esters**, but as indicated above, the esters are produced only in the alkoxycarbonylation reaction of Matteoli et al., and there is no suggestion of using the amines in the alkoxycarbonylation reaction.

Furthermore, the "expected result" argument of the Examiner does not provide a **reason** for combining the references. As noted in MPEP 2143, in order to establish a *prima facie* case of obviousness based on a combination of references, three basic criteria must be met, i.e. (1) there must be some suggestion or motivation to combine the reference teachings, (2) there must a reasonable expectation of success, and (3) the prior art references when combined must teach or suggest all the claim limitations. The Examiner's "expected result" argument goes to requirement (2), but the Examiner has not satisfied requirement (1) concerning some suggestion or motivation why one of ordinary skill in the art would combine the reference teachings. Applicants note that the Memorandum dated May 3, 2007 from the Deputy Commissioner for Patent Operations, following the Supreme Court decision in *KSR Int'l. Co., v.Teleflex, Inc.*, states that it still remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.

For these reasons, Applicants take the position that the rejection for obviousness based on a combination of Matteoli et al. with Fuchikami et al. should also be withdrawn.

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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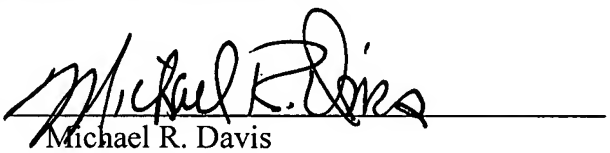
By: 

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